

U.S. Department
of Transportation

United States
Coast Guard



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08/29/96

The Secretary
Federal Communications Commission
1919 M Street
Room 222
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

Dear Mr. Secretary

In accordance with Section 1.429 of the Commission's Rules, enclosed is a Petition for Partial Reconsideration in response to the Report and Order in CC Docket No. 94-102, Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems.

Sincerely,

A handwritten signature in cursive script, appearing to read "J.D. Hersey Jr.", written over the typed name and title.
J.D. HERSEY JR.
Chief, Spectrum Management Division
By direction

Encl: (1) USCG Petition for Partial Reconsideration

Copy: Chief, Common Carrier Bureau

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Before The
FEDERAL COMMUNICATIONS COMMISSION
Washington, D. C. 20554

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter of)
)
Report and Order Concerning the Revision)
of the Commission's Rules to Ensure Compatibility)
with Enhanced 911 Emergency Calling Systems)

CC Docket No. 94-102

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PETITION FOR PARTIAL RECONSIDERATION

The United States Coast Guard (Coast Guard) respectfully submits this Petition for Partial Reconsideration of the Report and Order (R&O) in the above-captioned proceeding.

Introduction

1. The Coast Guard commends the Federal Communications Commission (FCC or Commission) for its timely and well-thought-out decision concerning applicability of enhanced 9-1-1 (E911) service to cellular and broadband PCS providers. We believe that this decision will significantly assist the Coast Guard and other public safety agencies in responding to distress calls made using these systems, and quickly identifying, locating and rescuing those persons in distress. We are very grateful for your efforts in this matter. The Coast Guard seeks reconsideration, however, of that part of the Commission's decision that does not provide such assistance; rather, it exempts mobile satellite systems from important regulatory requirements, on the basis that failure to do so "may impede the development of the service in ways that might reduce its ability to meet public safety needs." (R&O para. 83). As a nationwide public safety agency that must respond daily to an ever growing number and variety of wireless emergency calls, the Coast Guard respectfully requests the Commission reconsider the grant of an exception to mobile satellite systems.

Mobile Satellite System Usage Will Grow, Perhaps Dramatically

2. Except for the mobile satellite systems operated by the Inmarsat Organization, an international organization whose satellite systems were adopted as elements of the Global Maritime Distress and Safety System, mobile satellite voice systems are fairly new and not yet in widespread use. Consequently any lack of E911 interoperability by these systems has not yet caused material difficulty to public safety access providers accustomed to handling emergency calls from cellular telephones. At the same time, the Coast Guard has actively supported the Commission at national and international fora in encouraging adequate spectrum allocation for these systems, and in encouraging their growth. We fully expect availability and use of these systems to grow significantly in the near future. When that happens, in the absence of pertinent safety regulations and standards, public safety agencies will face the potentially tragic consequences of interoperability. The Coast Guard submits that it is best to resolve the E911 access issue now, rather than to wait for the design and development of mobile satellite systems, and a corresponding threat to public safety.

International Standards Bodies

3. The FCC correctly noted that mobile satellite system carriers “generally opposed the application of E911 requirements to them on grounds that their service is international rather than local,” and that “coordination with international standards bodies will be necessary for international calls, and the current state of technology requires more obstacles to be overcome in the case of MSS providers than for terrestrial carriers.” (R&O para. 78 and 83, respectively). These circumstances do not justify deferring national standards or regulations regarding mobile satellite access to emergency services. To the best of the Coast Guard’s

knowledge, except for maritime and aeronautical mobile satellite systems, and priority preemption requirements intended to protect maritime and aeronautical safety uses of “generic” mobile satellite systems, no international standards exist or are even being considered which would address mobile satellite access to, and interoperability with, emergency services. Indeed, such matters have traditionally been considered by individual nations. If U.S. policy is to migrate away from aeronautical and maritime satellite spectrum allocations, toward “generic” mobile satellite spectrum allocations, and thus toward “generic” mobile satellite systems having broader constituencies, then such standards are a vital necessity. If the Commission decides that national safety standards should not be imposed on these systems because they operate internationally, and international organizations (such as the International Telecommunications Union) decide that international safety standards should not be imposed on these “generic” systems because such standards are a national responsibility, then the worst of all cases would result: establishment and use of mobile satellite systems by huge numbers of various constituencies with no safety standards at all! The Coast Guard believes that mobile satellite safety standards can appropriately be applied, and should be applied, both on a national basis to those systems operating land earth stations in the U.S., and on an international basis as well to all such systems. U.S. influence at international fora concerned with such issues, such as ITU Study Group 8, has been strong, and there should be no reason why compatible national and international safety standards could not be developed together. The Coast Guard would be willing to assist in that effort.

Technical Problems Limiting Mobile Satellite Access to Emergency Services

4. Mobile satellite system carriers also opposed application of E911 requirements to them on grounds “that it would be difficult to route a call to the nearest public safety access point (PSAP), and that it would require the costly and inconvenient adaptation of handsets.” (R&O para. 78). The Coast Guard considers that these difficulties have been overstated. In April we notified the Commission that we had been contacted by the American Mobile Satellite Corporation (AMSC) concerning our reply comments to this proceeding, and that we had begun discussions with them concerning the deployment of enhanced 911 services. The Coast Guard met with AMSC on August 14, and discussed each of the enhanced 911 compatibility issues addressed in our comments and reply comments to this proceeding. They also demonstrated how emergency calls are being handled. AMSC is the first of what will likely be several mobile satellite carriers offering cellular-like voice services operating in the U.S. In its comments submitted to the Commission regarding the Consensus Agreement, AMSC noted it had implemented an emergency referral service, a service which appears to meet many of our concerns. AMSC users who dial E-R-S (377) immediately reach an AMSC operator (available on a 24 hour day, 7 day week basis) who is trained to pass the call to an appropriate state, local or Coast Guard emergency response center. The major issue the Coast Guard was unable to immediately resolve with AMSC was that carrier’s inability to pass automatic location information (ALI) on to the emergency service provider. The issue was not so much technical as it was financial. ALI, for example, could be forwarded, if the mobile unit had an integral Global

Positioning Service (GPS) receiver (best projected prices for a two-chip GPS set which could provide this capability are about \$60¹), if the unit had a modem (typically less expensive than a GPS receiver) capable of transmitting the ALI information to the ground station and its emergency referral service over the satellite voice channel, and, if the ground station had telephone switching circuitry, such as Signaling System 7 (SS7), capable of forwarding the ALI (and automatic number identity, or ANI) information directly to the emergency service provider. As GPS receivers become smaller and even less expensive, and SS7-capable switches become more common, ALI and ANI capability should become even easier and less costly to implement. While not agreeing to implement all the requirements levied by this Report and Order on terrestrial carriers, particularly ALI, AMSC indicated to the Coast Guard that it had no objection to placing these safety interoperability issues before the Commission for resolution.

Cellular Vs Mobile Satellite User Terminals

5. The AMSC user terminal handset, like other mobile satellite handsets, works and looks like a cellular telephone handset. Indeed, it is feasible to combine the two systems, allowing users to take advantage of least-cost routing, depending on whether cellular coverage is available. The user making a call may not necessarily know which system he or she is using. During an emergency, a user should be able to dial 911 regardless of the system through which the call is routed. AMSC, to its credit, has accomplished this by routing 911 calls made over its system to its emergency referral service. Other mobile satellite services could and should do the same.

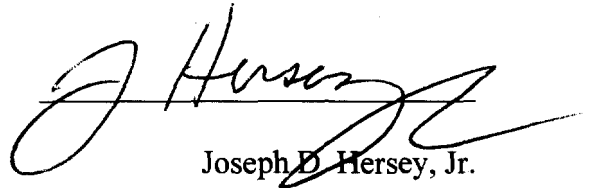
¹ "Highly Integrated Chipset for GPS Receivers Using Risc," by Peter M. Bingham and Martin Fryer, GEC Plessey Semiconductors; and "Low Cost Front Ends for GPS Receivers," by Simon P. Goddard and William L. Barber,

Petition for Partial Reconsideration

6. This petition is submitted in accordance with 47 CFR 1.429, where we believe facts relied on relate to events which have occurred and circumstances which have changed, such as results of Coast Guard discussions with AMSC, costs for providing GPS and incentive for enhanced 911 compatibility, since the last opportunity to present them to the Commission. We also believe that a reconsideration is required in the public interest.
7. The Coast Guard requests that the Commission issue a Further Notice of Proposed Rulemaking, with an extended comment period, on this subject. We believe that E911 interoperability and related issues can be discussed, and some requirements applied, in a way that will not hinder the development of these new services, nor reduce their ability to meet public safety requirements. Those requirements that perhaps cannot be applied immediately for financial reasons, such as ALI, should be resolved in time by the Commission as improved technology and growth of mobile satellite services relieve the financial difficulties. But it is unlikely that these matters will be resolved if they are removed from active consideration by the Commission. Indeed, positive steps such as AMSC's emergency referral service might be foregone if mobile satellite services remain exempt from wireless enhanced 911 requirements, and if, as is expected, market forces alone cannot justify the continuance of such safety services. If mobile satellite carriers remain exempted from E911 compatibility rules, then the incentive to do anything toward E911 compatibility will be largely lost.

8. The Coast Guard also notes that the Interagency Committee on Search and Rescue (ICSAR), hosted by the Coast Guard, has established a Commercial Mobile Satellite Services Working Group, attended by representatives of most existing and planned U.S. mobile satellite carriers, to address many of these issues. That Working Group could help ensure these issues are resolved during a Further Notice of Proposed Rulemaking, in the same mutually acceptable way those issues were resolved for cellular and broadband personal communication service (PCS) carriers.

Respectfully Submitted,

A handwritten signature in dark ink, appearing to read "J. Hersey, Jr.", written over a horizontal line.

Joseph D. Hersey, Jr.
Chief, Spectrum Management Division
By Direction of the Commandant

Commandant (G-SCT-2)
United States Coast Guard
Washington, D.C. 20593-0001

August 29, 1996